The Call Letter

December, 2022
Volume 48 #12

Christmas Party
Dec 10 See page 3

Franklin Ouchida,
2022 Volunteer of the year (see page 2)

The Northwest Vintage Radio Society

Post Office Box 82379 Portland, Oregon 97282-0379

The Northwest Vintage Radio Society is a non-profit historical society incorporated in the State of Oregon. Since 1974 the Society has been dedicated to the preservation and enjoyment of "Vintage Radio" and wireless equipment. Membership is open to all. The dues are $25.00 for domestic membership, due on January 1st of each year.

The Call Letter has been in print since 1974 and is a publication that informs members of the society's business and that supports the hobby of collecting, restoring and preserving vintage radios.

Society meetings are held the second Saturday of most months at the Abernethy Grange Hall at 15745 S. Harley Ave. in Oregon City, Oregon. They convene at or about 9:30 AM for the purpose of displaying radios, conducting Society business, and exchanging information. Guests are welcome at all public meetings and functions. Society functions include guest speakers, auctions, restoration classes, radio shows, and radio sales which are announced in the Call Letter and held in and around the Pacific Northwest.

With each issue of the Call Letter, we remember Jim Mason, a charter member of the society who remained active until his death in 1998. A generous bequest from Jim's estate ensures the vitality of the Northwest Vintage Radio Society, and continued publication of the Call Letter.

Society Officers

President Pat Kagi (360 909-7009) patkagi@yahoo.com
Vice President Franklin Ouchida crazykeychains@gmail.com
Treasurer Ed Tompkins (360 635-2489) edtomp@gmail.com
Recording Secretary Dan Howard nvrsdan@gmail.com
Board member Mike McCrow (503) 730-4639) soundmikey14@gmail.com

Key Volunteers

Call Letter Editor Dick Karman Relivingradio@karmans.net
Associate Call Letter Editor Dan Howard nvrsdan@gmail.com
Historian/Archivist Dan Howard nvrsdan@gmail.com
Photographer Sonny Clutter Radiolaguy@outlook.com

December Table of Contents

Meeting Minutes 1
Vice Presidents Note 3
Presidents message 3
Christmas Party 3
32 volt Farm Radios 4
Transistor collector 9
In Memory of Jim Meyers 11
100 years ago 12
Restoration Photos 13

Radio Repair Mentors

These are willing to mentor small groups in Radio Restoration:

Blake Dietze	360 944-7172 Vancouver
Ed Tompkins	360 635-2489 Vancouver

November Meeting Minutes

By Dan Howard, Recording Secretary

Following an enjoyable auction, President Pat Kagi called the November 12th, 2022 meeting of the Northwest Vintage Radio Society to order at 9:55.

After greetings, we recited the Pledge of Allegiance and recognized the military veterans in attendance.

Guests: Although the auction attendance was considerably higher, meeting attendance was about 35 with additional members joining by Zoom. We were pleased to meet new member Lowell Loughary, K7LFT. Tony Hauser, Mark Dinsmore, Art Redman, and Warren Bergh were welcomed back after long absences. We also had the pleasure of meeting Nick Hammel and Bill Easton, KG7KOS.

Health and Welfare: RJ Rhodes and Dick Bosch are currently experiencing health concerns.

Secretary's Minutes: The October minutes were approved as printed in the Call Letter.

Treasurer's Report: Our finances remain healthy.

Leads and Needs: Scott Thomas needs two black tube shields and a cabinet base molding for a Zenith12-A-58. Mike McCrow needs socket savers for the octal, 7-pin, and 9-pin sockets on his Hickock TV 7 tube tester. Bill Ostrander needs a cabinet for his Hallicrafters SX-28 chassis.

People interested in helping plan the 2024 NWVRS 50th anniversary celebration should contact V.P. Franklin Ouchida.

Old Business: Wayne Bensch's request for a multi-band receiver and a good indoor antenna has been met by generous members. The Yaesu FT-60R and antenna will be set up for Wayne in the near future.

Mike McCrow, Scott Thomas, Mike Moran, and Christian Winfield volunteered to plan the Christmas Party.

Nominees for Society officers for 2023:

President:	Pat Kagi (incumbent)
Vice President:	Franklin Ouchida (incumbent)
Treasurer:	Ed Tompkins (incumbent)
Recording Secretary:	no nominations received
Corresponding Secretary:	Scott Thomas

New Business: Amongst other outreach efforts, we've sent sample Call Letters to the former members of the Tube Collector's Society. Dick Karman is exploring the idea of producing an audio version of the Call Letter for members that prefer to listen to the content.

Restorations: Mike McCrow, Pat Kagi, Esteban Mendoza, and Damon Vandehey discussed their recently completed radio restorations.

Member of the Year: President Pat Kagi nominated V.P. Franklin Ouchida* for the 2022 NWVRS volunteer of the Year. The nomination was seconded and approved unanimously. He was awarded an unbuilt, mint-in-box, 1960's era transistor radio kit Congratulations Franklin! (and thank you for your exceptional efforts).

Tube of the Month: Mike McCrow discussed the Type 10 triode.

Tech Talk: Cliff Tuttle talked about Atwater Kent's radio products of 1922. To our delight, he demonstrated an Atwater Kent Model 2 breadboard radio and showed us an Atwater Kent Model 4, as well.

Monthly Feature: Members showed 100-year-old radios. We hope to continue showing 100-year-old radios each year at the November meetings. The January, 2023 display theme will continue our number display theme with "1" (radios and accessories associated in some way with the number 1).

The meeting was adjourned at 11:50.

*** Volunteer of the Year --- Some of Franklin's accomplishments**
Setting up the use of Paypal; hosting zoom meetings and WRNZ; archiving video recordings of our meetings; liaison between NWVRS and PSARA, Grange Hall setting up, Tech talk coordinator, arranging "after meeting activities and drawings" and more.(see photo on cover)

President's Greeting

From Pat Kagi, President

I hope and pray that everyone will have a very Merry Christmas and a Happy New Year! We have so much to be thankful for and I hope to see everyone at the Christmas celebration this year.

Vice President Notes

By Franklin Ouchida

Thanks to all that renewed your dues using PayPal.com NWVRS.ORG@gmail.com -use Friends and Family option.

Join us every Wednesday at 7:00 pm (pacific time) for WRNZ. Login early for social talk Starts at 6:30 pm.

(Wednesday Radio Nights on Zoom) just as close as your computer or phone. Everyone is invited to chat about radios.

Merry Christmas To all my friends!

All members are invited to the 2022 NWVRS Christmas Party. December 10th, 2022.

This year we are having a pot-luck. Please arrive at the grange at or before 9:00 AM.

Brunch will be served around 10:00. Last Name Menu: last names from A to I please bring a Dessert, last names J to R please bring a side dish, last names S to Z please bring a salad. The club will provide drinks, ham, turkey breast, and dinner rolls.

There will be several door prizes, tickets are at each place setting. Everybody who sits down to brunch is entered!

There will be a White Elephant gift exchange for those that wish to participate. To participate, bring a wrapped gift, or "gift in a sack" with a value of $25.00, or something comparable that you made.

It is a White Elephant game meaning you can steal a gift that has been opened then that person gets to choose another, or pick a new one. Bring a gift and play the game.

32 Volt (Farm) Radios –

A brief introduction by John Cushing

Like most radio collectors, I was eventually forced by limited space to focus on a few kinds of antique radios. Among the ones I found the most interesting were "farm radios," built for the millions of farm families who still did not have utility supplied electricity in the 1930's. And among farm radios I have found 32 volt DC radios especially interesting.

Most antique farm radios you see today were designed to run from a 6-volt lead-acid storage battery, the kind of battery used in cars and tractors before the 1950's. These radios used a mechanical vibrator or "chopper" to interrupt the 6- volt DC input about a hundred times per second. A variety of transformer circuits were devised to step this up to pulsating DC in the neighborhood of 100 volts. That output could then be rectified and/or filtered to produce the steady DC plate voltage required by vacuum tubes.

But some radio manufacturers took another path: They built farm radios that could operate directly on 32 volts DC without the need for an expensive, noisy, and failure-prone vibrator-driven plate voltage power supply.

Why 32 volts? The main reason is that thousands of farms already had 32-volt DC generators by the time radio came around. 32-volt gasoline powered generators had been pioneered by Delco (Dayton Engineering Laboratories Co.) in the Ninteen-Teens. Between

32 volt Delco-lite power plant and batteries

Photo courtesy of the Historic Military Vehicle Forum

1916 and 1947, when production ceased, Delco sold hundreds of thousands of these generators with outputs ranging from 500 to 3000 watts. Other companies also sold 32-volt electrical systems for farms, some based on wind or water powered generators.

Delco and others made may kinds of 32-volt DC appliances including lights, fans, irons, drills, butter churns, vacuum cleaners, food mixers, arc welders, and lots more.

Yes, but why 32 volts? There appear to be three possible reasons why the founder of Delco, Charles F. Kettering, chose 32-volts DC as the basis for his Delco-Light power plants. First, 32-volt electrical systems were already in use for lighting on steam trains and ships. So it was already a sort of "standard."

A deeper reason has to do with the fact that the 32-volt DC generators were not used by themselves. Rather they charged batteries that could supply much more current than the generator alone and could also supply power when the generator was not running. The battery bank was made up of large glass tank 2-volt lead-acid cells wired in series. Sixteen such 2-volt batteries supplied 32 volts. The combined ampacity of a bank of such cells was much greater than that of the 6-volt car batteries used in the 1930's; sometimes as much as 480 amp-hours.

Finally, 32 volts is a safe compromise between low voltage high amperage electrical systems and high voltage low amperage systems. The threshold for dangerous electric shock is somewhere around 50 volts. 32 volts is well below that threshold. But it's high enough to be efficient at transmitting power over household distances. And safety mattered: Electricity was a new thing at the time and accidents were not uncommon. In fact, my own grandfather was killed in an electrical accident on our Nebraska farm in 1937.

So now that I've explained how it came to be that there was a readily available source of 32 volts DC on farms in the 1930's let's turn to how 32 volt radios work. 32 volts is much lower than the plate voltage used in most vacuum tube radios, but it is enough with the right tubes and the right circuits.

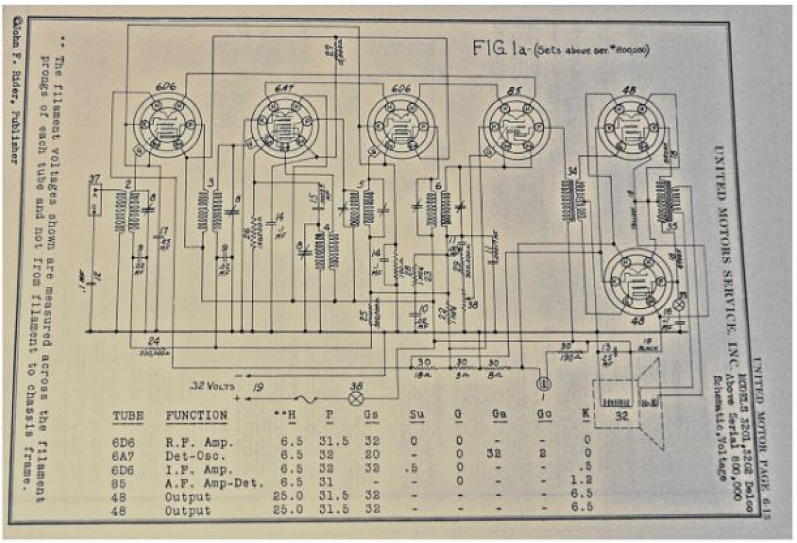
As an example of a 32-volt radio that does not use a vibrator to generate the plate voltage let's consider the Delco model 3201, a six tube radio introduced in 1934. To the right is a photo of a one I recently acquired.

This radio uses two 6D6 tubes, one 6A7 tube, one 85 tube, and a pair of type 48 tubes for the audio output.
. It draws only about 2.5 amps at 32VDC. The filament circuit is a hybrid: The type 48 screen grid tetrode output tubes have 30 volt filaments so each is quite happy being heated by the full 32 volts. The other four tubes all have 6.3 volt filaments, so their heaters are wired in a series filament circuit along with a section of a Candohm dropping resistor. As with other series filament radios, of course, when one 6-volt tube burns out the others won't heat – just like the old series Christmas tree lights. 32 volts also powers the speaker's field coil.

And 32 volts is just enough B+ for all the tubes to work, although it's so low that this radio does require a good antenna to perform well.

Restoring this radio posed some challenges. The most serious problem was that the antenna transformer's primary was open, probably blown by a lightning strike. Someone long ago had "fixed" this problem by connecting a .05 ufd capacitor from the top of the antenna coil's primary to the top of its secondary (see part #2 in the schematic). This solution often sort of works, but does limit performance significantly. Unfortunately, the antenna coil for this radio is sealed in a can under the chassis and extremely difficult to remove for rewinding or replacement. So I decided to

live with this issue until I turn up a 3201 parts set with a good antenna transformer. (I did replace the .05 ufd cap with a more suitable 50 pf cap.)



TUBE	FUNCTION	**H	P	Gs	Su	G	Ga	Go	K
									32
6D6	R.F. Amp.	6.5	31.5	32	0	0	-	-	0
6A7	Det-Osc.	6.5	32	20	-	0	32	2	0
6D6	I.F. Amp.	6.5	32	32	.5	0	-	-	.5
85	A.F. Amp-Det.	6.5	31	-	-	0	-	-	1.2
48	Output	25.0	31.5	32	-	-	-	-	6.5
48	Output	25.0	31.5	32	-	-	-	-	6.5

Several of the paper capacitors in this radio are dual units, each having an axial wire lead on one end and a common terminal formed by a connection to a solder lug in the middle of the cap. This construction is common for multi-section can electrolytic capacitors, but I'd never seen paper caps like this before except for Philco Bakelite potted capacitor networks. It took some head scratching to figure out that some caps greatly separated in the schematic are in fact in the same package. For example, two of the .02 ufd caps labeled as part #9 in the schematic are in the same physical package.

Another problem was that the Rider's schematic did not exactly match the actual wiring. I was lucky in that my radio was unmolested (except for the antenna coil capacitor bridge previously mentioned). In such cases I think it's best to go with the way the radio is actually wired if there is a conflict and only use the schematic as an aid to locating parts and tracking my progress. But one significant error in the schematic did almost lead me astray. Can you spot it? HINT: Look for a resistor that is completely useless.

Many 32 volt radios were made during the 1930's, but today these radios are very uncommon. One reason, of course, is that much better radios were already available by the mid 1930's. So as soon as farms got 110VAC utility power most farmers retired their 32 volt generators and replaced their 32-volt radios.

A more insidious reason is that the 32 volt DC wiring installed in farm homes was exactly the same as the 110 volt AC wiring already being used in cities -- Same wire size, same light sockets, same outlets, same appliance plugs, etc.

As a result, as soon as a farm home had been connected to the 110 VAC utility grid any 32-volt DC appliance could easily be mistakenly plugged into an outlet that now carried 110 volts AC. For a 32-volt radio this meant instant death: Tube filaments blown or worse. Once this happened the radio went to the barn or more likely to the dump.

And many 32-volt radios have suffered the same fate much later: Ignorant of the existence of such radios, many an antique radio collector has plugged one in just to see if it worked. **POOF!** So next time you find an old radio make sure it really is meant to work on 110 VAC before trying it.

Visit Our Booth and See the

New Radio Frequency Set

The Biggest Hit of the Show

Northwestern Radio Manufacturing Co.

RADIO SUPPLIES

1556 East Taylor St. **Tabor 2686**

Make This a Radio Christmas

Nov 1922 the Oregon Journal

These times confuse me .
So much is out of gear.
But I wish you
Happy Christmas.
And a very merry
New Year
from Tom James

Transistor Radio Collector

Exceptional Early American AM Transistor Radios

The second in a series by Jeff Hutchinson

My childhood years were in the 1960's. I recall my first transistor as being a small GE P1710A pocket radio. It was an inexpensive 6-transistor AM with a reed style high impedance speaker. But I had no complaints as it picked up all the local music stations and the radio's sound quality was all I knew at that time. Now almost 60 years later, I have collected and restored many vintage transistor radios that I could only dream of owning as a child and teenager. This and subsequent articles will focus on a few select early "American-made" AM transistor radios (those with FM and multi-band features are another subject matter.)

Let's look at one of the few exceptional AM radios of the day when manufacturers spared no expense to make a performance radio using the best components and workmanship.

Zenith Royal 755 Series Leather "Lunchbox" AM Radio

The Zenith Royal 755 series radios first started with the

755LF in 1959. The ferrite antenna was enclosed in the handle and could be rotated for best reception. Some consumers complained that reception suffered when carrying the radio (hand capacitance de-tuned the radio) and future models placed the ferrite antenna back into the case.

The 755LG came out in 1960 and the 755LK with battery saver feature arrived in 1963. The battery feature switch simply supplied the radio with lower voltage to save battery life when listening at low volume. In 1965, the 755M came out and had a slightly larger case and hi/lo tone switch. This model is considered the best sounding Zenith leather lunchbox ever made, possibly due to larger case, but the other models are exceptional too! All four have quality cowhide leather cases, 8 transistor chassis with tuned RF stage, Vernier tuning & slide rule tuning dial. 6 C-cell batteries power the radios. It had excellent sensitivity and audio.
[photos by the author]

Thank you to all of the volunteers who make this publication possible: the dedicated folks who contribute written works and proofread the finished product; the members who fold, staple, label and stamp the US mail version every month; our trusty photographers who add color to the pages; and the writers from other organization that I am privileged to call 'friends.'

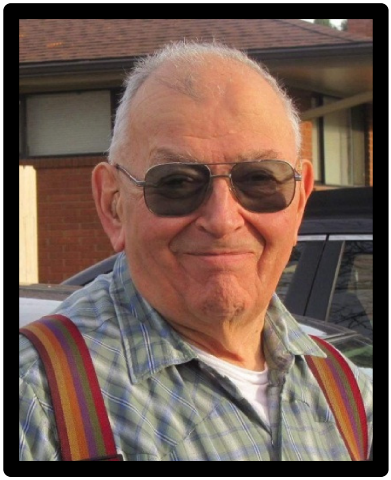
Remember, wise men still follow HIS star.

Dale Karman

In Memory of Jim Meyers

June 24, 1937 - August 14, 2022

85 years old



While most of us are amateurs, Jim Meyers was a professional. His father, Harold founded Meyers Radio Repair in 1941 in Walla Walla. His older brother Harold started working in the shop when he got out of the army in 1947. Jim worked alongside his brother when he wasn't serving in the National Guard. Jim and Harold were working on "old radios" before they were 'old radios.' The shop eventually changed its name to Meyers Radio and Television Repair. Jim put in a total of 67 years at the shop repairing radios and televisions.

At its peak, the shop had seven employees to fix and deliver radios and TVs. Jim and Harold agreed (in a 2007 interview) that "no one will miss hauling around the old televisions." Jim said he will miss the radios, particularly the tube radios the most. Both the brothers retired in 2007 and the shop was closed the last time.

When tube radio repair was no longer sought after by the public, Jim carried on repair and restoration as a hobby. He worked on radios and spring driven phonographs. He made many trips down the Columbia River Gorge to attend NWVRS Swap Meets. By all reports his offerings at the swap meets were fully restored and nicely cared for.

Jim lived in Walla Walla all his life, attending Prospect Point Grade School and Walla Walla High School (known as Wa-Hi) where he graduated in 1956. He attended Pioneer United Methodist Church.

A graveside service was held October 8.

A special thanks to Jim's sister Nadine for keeping us informed.

100 Years Ago

Contributed By
Charter Member
Art Redman

From the Oregon Journal June 1922

Cliff Watson, officially known as C. H., is one of those fortunate individuals that doesn't have to work. By the same token he is one of those foolish individuals that work because he likes it.

He too, is a member of the great triumvirate that started the radio bug on ta merry career in Portland, Cliff was bitten most severely at the early age of 15 and never recovered, in fact the ailment has long since passed the acute stage and is now most chronic. Scientists, who have examined him, pronounce his case hopeless. - One of Cliff's outstanding characteristics is curiosity. He is always wanting to know, "How it works." Authentic records have it that while in his youth he worked at no less than 15 trades merely to find out something about each of them. During all this time he was tinkering away at his spark set.

With Joe Hallock, his redoubtable partner, he installed the first radio on the campus at O. A. C. and at the college. Last week he repeated the performance by rigging up an outfit for the edification of the editor's convention at Corvallis.

He has had an active part in building most of the radio stations around Portland and vicinity. His work consisted mostly of designing. From 1914 to 1916 he was employed by the Montana Power company as their radio expert. Here, too, he designed several stations and superintended the construction of them.

Early in 1917 he was appointed assistant radio inspector of the seventh district. In July he was made inspector in charge of the district but resigned within a few months to accept a position with the bureau of steam engineering of the navy. His first assignment was at the Mare Island Navy Yard in charge of working parties installing remote control and receiving apparatus for the navy.

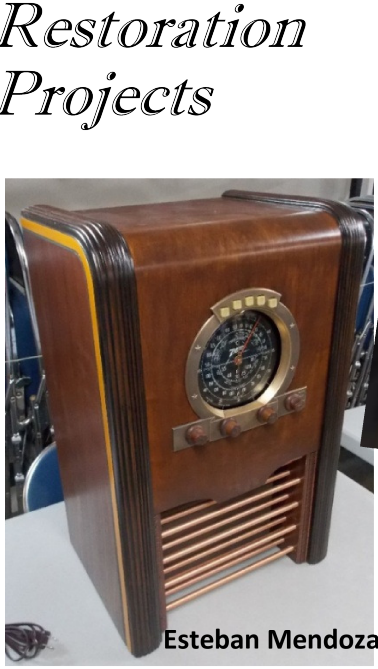
In 1920 he was made laboratorian and placed in charge of the Mare Island radio laboratory, where he performed many experiments that proved of great value both to the navy and to commercial work. It was there that he perfected the circuit that made possible the use of the radio to accurately detect the approach of thunderstorms and other electrical disturbances.

Watson carried on his work for the navy until he came to Portland to form the Hallock & Watson radio service with Joe Hallock….

Red headed though he is, his nature is most genial and everyone coming in contact with him and his smile is impressed. One of the outstanding features of Cliff is a very brilliant red mustache. So pronounced is this feature that some wit -dubbed him with a name that has stuck. The name is uttered in the best known Sherlock Holmey fashion, "Watson- the cat's whiskers".

Cliff's chief pastime is to dope out some method of hooking up their transmitting set and then go away and let Joe Hallock figure out some way to make it "mate".

Restoration Projects


Esteban Mendoza

Damon Vandehey

Mike McCrow

NW Vintage Radio Society
P.O. Box 82379
Portland, OR 97282-0379

FIRST CLASS MAIL